PS400L-34G

High Frequency Low Loss Phase Stable Cable (34 GHz)

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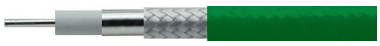

Key Features & Capabilities:

- Operating Frequency: DC to 34 GHz with low attenuation.
- Low density LD-PTFE insulation providing 76% Velocity of Propagation.
- Triple shielding (>90 dB effectiveness) for high isolation.
- Excellent phase stability vs. bending (±0.3 °/GHz).
- Compact minimum static bending radius of 8.0 mm.
- Durable green FEP jacket rated for -55°C to +125°C.

1. STRUCTURE & MECHANICAL CONSTRUCTION

Item	Layer Element	Material Specification	Nom. O.D. (mm)
1	Inner Conductor	Silver Plated Copper (SPC) (1/0.91 mm)	0.91
2	Insulation	LD-PTFE Dielectric	2.70
3	Inner Shield	Silver Plated Copper Strip	2.90
4	Interlayer	High Temperature Aluminum Foil	3.05
5	Outer Shield	Alloy Wire Braid	3.45
6	Jacket	Green FEP	4.00

2. ELECTRICAL & ENVIRONMENTAL RATINGS

Impedance	50 Ω	**Max Operating Frequency**	34 GHz
Velocity of Propagation	76%	**Capacitance**	88 pF/m
Screening Effectiveness	>90 dB	**Withstanding Voltage**	1200 V DC
Phase Change vs. Bending	±0.3 °/GHz	**Phase Change vs. Temp.**	N/A
Min. Static Bend Radius	8.0 mm	**Min. Dynamic Bend Radius**	40.0 mm
Weight	0.041 kg/m	**Operating Temperature**	-55°C to +125°C

3. ATTENUATION & POWER HANDLING DATA

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Calculation Formula: Insertion Loss IL = K1 * √(F_MHz) + K2 * F_MHz  (K1 = 1.305096731, K2 = 0.003337)
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Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max. Power Handling (W @ 40°C)
500	30.85	660
1000	44.61	456
2000	65.04	313
4000	95.89	212
6000	121.11	168
8000	143.43	142
10000	163.88	124
12400	186.71	109
16000	218.48	93
18000	235.16	87
26500	300.88	68